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ABSTRACT

This address by the Director of the National Institute on Aging is a plea for the recognition of the necessity of fundamental research on the aging process. It cautions that new scientific discoveries need to be evaluated more carefully before they are used on humans, and warns that the effects of drugs and treatments on older people may vary from other adults. Therefore, the author suggests that research on aging is essential along with more informed, coordinated health care that safeguards against the premature use of highly potent technologies in the practice of medicine. (Author/DOW)

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ADDRESS
BY
DR. ROBERT N. BUTLER
DIRECTOR, NATIONAL INSTITUTE ON AGING

I AM VERY PLEASED TO SPEAK TO YOU THIS MORNING BEFORE THIS GROUP OF COUNTY OFFICIALS REPRESENTING UNITS OF GOVERNMENT HISTORICALLY CLOSE TO AMERICANS AND RESPONSIVE TO THEIR MOST HUMAN CONCERNS;

BEFORE THIS INCREASINGLY POWERFUL GROUP, WHOSE RESPONSIBILITIES FOR THE NEEDS OF LARGE AREAS OF OUR NATION BROADEN AND DEEPEN EACH YEAR;

BEFORE THIS GROUP--FARSIGHTED AND PRAGMATIC ENOUGH TO CONVENE A SERIES OF CONFERENCES WITH THE THEME "WHEN COUNTIES HELP THE ELDERLY, THEY HELP EVERYONE"--AND COURAGEOUS ENOUGH TO CONFRONT THE REALITIES OF AGING THAT MANY FEAR AND DENY;

TODAY, I ASK YOU TO LOOK AT THE UNITED STATES IN THE YEAR 2020, THE YEAR IN WHICH OUR CHILDREN--YOURS AND MINE--THE POSTWAR "BABY BOOM," PASSES THE AGE OF 65.

IT WILL BE AN OLDER AMERICA, A GREYER AMERICA. THE CHILDREN WHO GREENED OUR LAND IN THE 1960'S AND 1970'S WILL MOST SURELY HAVE GREYED IT.

SUCCESSFUL HUMAN AND BIOMEDICAL TRIUMPHS OVER INFANT AND CHILDHOOD DISEASES; MATERNAL MORTALITY; ESPECIALLY INFECTIONS, AND IN SOME MEASURE THE DISEASES OF THE MIDDLE AND LATER YEARS, HAS A RESULTED IN A STEADY INCREASE IN THE ABSOLUTE NUMBERS AND POPULATION OF OLDER PEOPLE IN THIS 20TH CENTURY.

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* Before the National Conference on County Resource Development for Aging Citizens, Shoreham Americana Hotel, Washington, D.C. January 10, 1977, 9 a.m.

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IN 1900 THERE WERE SOME 3 MILLION PERSONS OVER 65. TODAY THERE ARE OVER 22 MILLION, AND 1600 MORE PASS THEIR 65TH BIRTHDAYS EACH DAY. BY 2020, THERE WILL BE ABOUT 43 MILLION OLDER AMERICANS, ALMOST TWICE AS MANY AS TODAY. MOST WILL BE WOMEN, AND WIDOWS.

THERE ARE, AS ALWAYS, SOME CAVEATS. CHANGING LIFESTYLES, INCLUDING WOMEN'S INCREASING PARTICIPATION IN THE WORLDLY RAT RACE, MIGHT SHORTEN THEIR LIFESPAN AND EQUALIZE THE BALANCE OF THE SEXES IN THE OLDER POPULATION. BUT EVIDENCE DOES NOT FAVOR THAT POSSIBILITY. BIOMEDICAL RESEARCH COULD MAKE PROGRESS AGAINST CANCER AND HEART DISEASE, AND ONE IN FIVE AMERICANS COULD BE 65 AND OLDER BY 2020.

ONE IN FIVE AMERICANS OVER 65! WHAT KIND OF WORLD WILL THEY--YOUR AND MY CHILDREN--ENJOY? INDEED, WILL THEY ENJOY IT AT ALL? HOW WILL THEY RELATE TO THEIR CHILDREN AND GRANDCHILDREN? WILL THEY LIVE ISOLATED AND APART? WILL THEY STILL BE FORCED TO RETIRE IN THEIR MID-SIXTIES? IF SO, HOW WILL THEY SPEND THEIR LONG RETIREMENT YEARS (NOW ABOUT 14 YEARS--THEN, PERHAPS AS MANY AS 25)? IF NOT, WILL THERE BE ENOUGH JOBS FOR THEM--REAL JOBS--AND ENOUGH PROGRAMS TO RETRAIN THEM? WILL THE COLLEGES AND UNIVERSITIES OPEN THE DOORS TO THEM, AS THE NUMBER OF COLLEGE-AGE YOUTH DROPS?

WILL THERE BE SUFFICIENT, LIVEABLE HOUSING FOR THEM, AND FULFILLING LEISURE TIME ACTIVITIES? WILL THE GENERATION WHICH FLED TO THE SUBURBS IN THE MID-TWENTIETH CENTURY CONTINUE TO BE BE STRANDED THERE IN THE TWENTY-FIRST, WITHOUT SIDEWALKS TO WALK ON OR CLOSE

NEIGHBORS TO TALK TO? WHEN THEY ARE NOT WELL, WILL THERE BE ENOUGH HOSPITAL AND NURSING UNITS FOR THEM, OR ENOUGH SPECIALLY TRAINED DOCTORS AND NURSES AND OTHER PARAPROFESSIONALS TO CARE FOR THEM? WILL THE CONFLICTING PRESSURES AS TO WHO SHOULD FOOT THEIR BILLS--FOR BENEFITS, OR FOR HEALTH CARE--PIT THE GENERATIONS AGAINST EACH OTHER, AND HEIGHTEN THE TENSION UNDER WHICH THEY LIVE?

"DEATH IS NOT THE TROUBLE." SAID ZORBA, THE GREEK. "LIFE IS THE TROUBLE." THE CHALLENGE CONFRONTING OFFICIALS LIKE YOU AND ME TODAY IS TO ASSURE THAT OUR SWELLING NUMBER OF OLDER CITIZENS--ONE TENTH OF OUR NATION NOW, ONE FIFTH BY 2020--DO MORE THAN SIMPLY SURVIVE. OUR CHALLENGE IS NOT TO REPLICATE YEARS IN WHICH HUGE NUMBERS OF US LIVE ON, DEPENDENT, FRAIL, RIDDEN WITH DISEASE, UNPRODUCTIVE, UNHAPPY AND LONELY, IN FEAR OF CRIME, DISSATISFIED WITH OURSELVES, FALSELY REGARDED AS SEXLESS, AND TEMPTED TO SUICIDE. OUR CHALLENGE IS TO EXTEND THE FRUITFUL MIDDLE YEARS, HEALTHY AND VIGOROUS YEARS IN WHICH WE CAN LIVE CREATIVELY, TO THE BEST OF OUR ABILITY, CARRYING OUR OWN WEIGHT AND PAYING OUR OWN WAY AS PRODUCTIVE CONTRIBUTIONS TO OUR SOCIETY.

AS A NATION, WE CAN ENHANCE OUR EFFORTS TO MEET THIS CHALLENGE IN THREE BROAD WAYS. FIRST, WE CAN INTENSIFY OUR ATTEMPTS TO IMPROVE THE ECONOMIC AND SOCIAL CONDITIONS UNDER WHICH OLDER PEOPLE LIVE NOW AND WILL LIVE IN THE FUTURE. SECOND, WE CAN WORK TO CHANGE THE NEGATIVE ATTITUDES TOWARD OLD AGE--ATTITUDES WHICH RESULT IN LABELING OLDER MEN AND WOMEN "CROCKS," "GEEZERS" OR "BIDDIES"--

WHO ARE "OVER THE HILL" AND "FADING FAST." I HAVE LABELED THIS PREJUDICE AGEISM. THIRD, WE CAN ACQUIRE NEW KNOWLEDGE ABOUT THE AGING PROCESS AND THE DISEASES--ACUTE AND CHRONIC--ASSOCIATED WITH AGING.

THE STUDY OF AGING IS NOT JUST THE STUDY OF DECLINE, LOSS, AND DECREMENT--WHICH DO INDEED ACCOMPANY AGING--AND NOT JUST THE STUDY OF DISABILITIES OR DISEASES WHICH MAY IN PART BE DUE TO SOCIAL ADVERSITIES. RATHER, IT IS THE STUDY OF THE NORMAL PROCESSES OF DEVELOPMENT WHICH ARE FUNDAMENTAL TO LIFE AND ABOUT WHICH WE KNOW ALL TOO LITTLE, INCLUDING CREATIVITY, LIFE EXPERIENCE, PERSPECTIVE, AND JUDGMENT.

AS COUNTY OFFICIALS, YOU ARE AWARE OF THE SPECIAL SOCIAL AND ECONOMIC NEEDS OF OLDER PEOPLE; YOU HAVE STARTED VALUABLE SERVICE PROGRAMS IN HOUSING, IN TRANSPORTATION, IN NUTRITION, AND RECREATION, TO NAME ONLY A FEW. THE VERY FACT THAT AS AN ORGANIZATION YOU HAVE TURNED YOUR ATTENTION TO THE ELDERLY, AND ARE HOLDING THIS SERIES OF CONFERENCES, SUGGESTS YOUR WILLINGNESS TO LEAD IN THE STRUGGLE AGAINST THE NEGATIVE ATTITUDES OF AGEISM. YOUR RESOLUTION IN CONVENTION LAST MARCH, SUBSCRIBING TO THE OLDER AMERICANS ACT, SHOWS YOUR AWARENESS OF THE GREAT NEEDS OF OLDER PEOPLE.

I WISH THIS MORNING TO TALK TO YOU CHIEFLY ABOUT THE THIRD AREA, THE SEARCH FOR NEW KNOWLEDGE. YOU MAY ASK, WHY US? WE ARE NOT RESEARCH SCIENTISTS, OR PRACTICING PHYSICIANS. WHAT CAN WE, AS

OFFICIALS OF CAPE MAY, PRINCE GEORGE'S, NASSAU OR JEFFERSON COUNTIES DO TO FIND NEW KNOWLEDGE TO IMPROVE THE LOT OF OLDER MEN AND WOMEN? WOULDN'T IT BE MORE REALISTIC TO CHALLENGE US TO COMMIT OURSELVES AND OUR RESOURCES TO IMMEDIATE SOCIAL SERVICE ENDS, RATHER THAN TO A LONG-TERM INVESTMENT IN RESEARCH?

AS A LONG-TIME TOILER IN THE COMMUNITY VINEYARDS, I FEEL VERY SECURE IN ANSWERING: YES, WE MUST INTENSIFY OUR EFFORTS TO DELIVER BADLY NEEDED COMMUNITY SERVICES, BUT, ALSO YES, ONE OF OUR MOST URGENT PRIORITIES AS A NATION NOW IS TO FIND NEW KNOWLEDGE ABOUT MANY SUBJECTS INCLUDING THE AGING PROCESS--THE UNIVERSAL BIOLOGICAL CONDITION COMMON TO US ALL IN CONGRESS'S WORDS--AND SO NEW WAYS OF PREVENTING, MODIFYING OR EVEN REVERSING SOME OF THE DELETERIOUS ASPECTS OF THAT PROCESS.

NEW KNOWLEDGE, FUNDAMENTAL UNDERSTANDING THROUGH RESEARCH, I SUBMIT, IS THE ULTIMATE SERVICE, AND THE ULTIMATE COST CONTAINMENT. WITHOUT NEW KNOWLEDGE THROUGH RESEARCH, WE WILL JUST KEEP ON DOING THE SAME OLD THINGS IN THE SAME OLD WAYS, AT EVER INCREASING COSTS.

WE WILL KEEP ON WAREHOUSING OLDER PEOPLE IN NURSING HOMES--1.2 MILLION NOW, IN 23,000 HOMES (AT LEAST HALF OF WHICH CANNOT PASS EVEN BASIC SANITATION AND FIRE SAFETY INSPECTION) AT A COST, IN NEW YORK STATE ALONE, OF ABOUT $15,000 A PERSON PER YEAR, $15 BILLION PER YEAR IS NOW THE NATIONAL COST. WE WILL KEEP ON HOSPITALIZING OLDER PEOPLE, AND SPENDING TWO THIRDS OF THE BILLIONS SPENT BY THE FEDERAL GOVERNMENT ON HEALTH CARE FOR MEN AND WOMEN OVER 65. THE TOTAL NATIONAL HEALTH CARE BILL ROSE FROM A STAGGERING $117 BILLION IN 1975 TO $139 BILLION IN 1976.

BUT THINK: BREAKTHROUGHS IN DISCOVERING THE CAUSES, AND IN THE

EFFECTIVE DIAGNOSIS AND PROMPT TREATMENT OF THE DEVASTATING BRAIN DISORDERS WITH THEIR HORRIFYING DESTRUCTION OF PERSONALITY AND MEMORY, WHICH ARE RESPONSIBLE FOR THE MAJORITY OF INSTITUTIONALIZATION IN THE LATER YEARS, COULD REDUCE THE NURSING HOME POPULATION. IF WE RELEASED 10 PERCENT OF ADMISSIONS, WE WOULD CUT INSTITUTIONAL COSTS BY AT LEAST $1 BILLION;

IN THE SAME WAY, FINDING HOW TO PREVENT OSTEOPOROSIS, THAT SOFTENING OF THE BONES WHICH OCCURS SO OFTEN AFTER MENOPAUSE, COULD DRASTICALLY CUT THE NUMBER OF PAINFUL AND EXPENSIVE FRACTURES WHICH OLDER PEOPLE (ALMOST ALWAYS OLDER WOMEN) SUFFER, FRACTURES WHICH CAN MEAN THE END OF AN ACTIVE LIFE.

ADAPTING THE MARVELOUS TECHNOLOGY WHICH PLACED MEN ON THE MOON AND ENABLED ASTRONAUTS TO FLY IN SPACE, TO NEW PROSTHETICS COULD PERMIT ELDERLY PEOPLE WHO ARE SEVERLY DISABLED BY STROKE, ARTHRITIS, OR MUSCULAR WEAKNESS TO MOVE ABOUT THEIR OWN HOMES, AND LEAD INDEPENDENT LIVES. I AM REFERRING TO CANE AND HAND SENSORS AND ACTIVATORS, REMOTE CONTROL DEVICES, WHEEL CHAIRS THAT CAN CLIMB STAIRS AND OTHER NOVEL BUT REALISTIC DEVICES. AND FINDING OUT MORE ABOUT DRUGS COULD PREVENT UNNECESSARY FALLS AND FRACTURES, OR THE CONFUSED EPISODES (OFTEN MISDIAGNOSED AS 'SENILITY') WHICH SO OFTEN RESULT IN EXCESSIVE HOSPITALIZATION AND NURSING HOME INSTITUTIONALIZATION. WE KNOW OUR BODIES HANDLE DRUGS AND REACT TO THEM DIFFERENTLY AS WE GROW OLDER. THE BASIC TOOLS FOR DEVELOPING THE PHARMOKINETICS AND PHARMODYNAMICS OF AGING--OR HOW DRUGS ARE ABSORBED AND DISTRIBUTED IN THE BODY, AND HOW THE BODY REACTS TO THEM--EXIST. BUT THE CLASSIC TEXT ON PHARMACOLOGY DOES NOT EVEN LIST THE WORD "AGE" IN ITS INDEX. DOCTORS ARE USUALLY

TRAINED IN MEDICAL SCHOOLS WITHOUT SPECIAL GERIATRIC COURSES OF ANY TYPES, INCLUDING PHARMACOLOGY, AND THEY HAVE NO RELIABLE PRESCRIPTION GUIDELINES FOR OLDER PEOPLE.

SO AN OLDER WOMAN RECEIVING A CERTAIN ANTICOAGULANT BEGINS TO BLEED PROFUSELY; OR A TRANQUILIZER WHICH MAY CALM A VIGOROUS YOUNG MAN CREATES A DANGEROUS DROWSINESS IN AN OLDER ONE.

RESEARCH IS THE ULTIMATE SERVICE, AND THE ULTIMATE COST CONTAINER. IT IS URGENT THAT YOU CONSIDER THIS CONCEPT SERIOUSLY. FOR WITHOUT YOUR UNDERSTANDING AND SUPPORT, AND THAT OF SIMILAR STRATEGICALLY PLACED AMERICANS, THOSE OF US RESPONSIBLE FOR DEVISING RESEARCH PLANS CANNOT GET VERY FAR.

THIS IS TRUE BECAUSE THE VALUE ESPECIALLY OF WHAT WE CALL "BASIC" OR FUNDAMENTAL RESEARCH HAS BEEN QUESTIONED REPEATEDLY IN RECENT YEARS. SOME NATIONAL POLICY MAKERS, PERHAPS NATURALLY IN SEARCH OF QUICK PAY-OFFS AND INSTANT CURES, HAVE MISTRUSTED THE SCIENTISTS' LONG YEARS OF STEP-BY-STEP, BASIC RESEARCH IN BIOCHEMISTRY OR CELL BIOLOGY. THEY HAVE CONSIDERED THIS "TEST TUBE" RESEARCH IMPRACTICAL, WITHOUT DIRECTED GOALS, AND NOT TIED CLOSELY ENOUGH TO HUMAN HEALTH NEEDS.

BUT SUCH RESEARCH CAN BE THE MOST PEOPLE-ORIENTED, THE MOST PRACTICAL RESEARCH OF ALL! WITHOUT SUCH RESEARCH, WHICH, IN THE PAST YEARS, HAS ATTEMPTED TO UNDERSTAND THE COMPONENTS OF THE CELL--THEIR ORGANIZATION AND BASIC CHEMICAL REACTIONS--

WE CANNOT ASSEMBLE THE INFORMATION WE NEED TO START TO INVESTIGATE REGULATORY MECHANISMS. WITHOUT SUCH RESEARCH, WE CANNOT DEVELOP THE BASE ON WHICH TO BUILD, AND PRODUCE THE MOST STUNNING AND PRACTICAL RESULTS--LIKE THE POLIO VACCINE, OR PENCILLIN, OR THE DISCOVERIES OF LAST YEAR'S NOBEL PRIZE WINNERS IN MEDICINE, DR. BARUCH BLUMBERG AND DR. CARLETON GAJDUSEK.

DR. BLUMBERG, FORMERLY OF NIH, FOUND A STRANGE PROTEIN HE CALLED AUSTRALIA ANTIGEN WHILE INVESTIGATING GENETIC VARIATION IN THE DISEASE SUSCEPTIBILITY OF DIFFERENT PEOPLE; NOW IT IS USED ROUTINELY TO FIGHT HEPATITIS. FROM NIH SCIENTIST DR. GAJDUSEK'S WORK ON KURU, THE LAUGHING DISEASE THAT WAS DESTROYING AN OBSCURE PEOPLE IN THE REMOTE HINTERLANDS OF NEW GUINEA, CAME THE FUNDAMENTAL DISCOVERY OF A NEW TYPE OF SLOW ACTING VIRUS THAT CAN PRODUCE BRAIN DEGENERATION. IT MAY BE INVOLVED IN MULTIPLE SCLEROSIS AND IN THE BRAIN DISEASES OF OLD AGE AS WELL AS IN OTHER MAJOR NEUROLOGICAL DISEASES.

WITHOUT RESEARCH, WE MIGHT STILL BE RELYING ON LEECHES AND THE PURGE, AND WE MIGHT BE RESIGNED TO PERIODIC OUTBURTS OF DEVASTATING PLAGUES. BUT AT BUDGET TIME, IN THE PAST WE HAVE HAD TO RELY ON "ANECDOTAL EVIDENCE": "LOOK, JUST FORTY YEARS AGO, MOST FAMILIES HAD FOUR OR FIVE MEMBERS CUT DOWN IN THEIR PRIME BY LOBAR PNEUMONIA OR TUBERCULOSIS." OR, "REMEMBER THE SAVINGS MADE WHEN THE POLIO VACCINE REPLACED IRON LONG MACHINES--IN DOLLARS AS WELL AS HUMAN SUFFERING."

INTRIGUING PAPERS PUBLISHED LAST YEAR NOW GIVE US MORE THAN ANECDOTAL EVIDENCE OF THE VALUE OF BASIC RESEARCH. WRITING FOR HIMSELF AND THE LATE DR. ROBERT DRIPPS, DR. JULIUS COMROE HAS REPORTED ON THEIR YEARS OF STUDY OF HOW RESEARCH IS ACCOMPLISHED. WHAT HAD TO BE LEARNED, THEY ASKED, TO PERMIT THE CARDIAC SURGEON ROUTINELY AND SUCCESSFULLY TO OPEN THE THORAX, STOP THE HEART, OPEN THE HEART, RESTART THE HEART, AND CARE FOR THE PATIENT TO ENSURE FULL AND SPEEDY RECOVERY? THAT WAS THE CLINICAL ADVANCE CHOSEN IN A POLL OF CARDIAC AND PULMONARY MEDICINE PHYSICIANS AND SURGEONS, AS THE MOST IMPORTANT DIRECT BENEFIT TO PATIENTS SINCE 1945.

TO FIND THE ANSWER, COMROE AND DRIPPS EXAMINED 4000 SCIENTIFIC ARTICLES, AND PICKED 529 AS "KEY ARTICLES" ESSENTIAL TO CLINICAL ADVANCE. FORTY ONE PERCENT WERE NOT CLINICALLY OR DISEASE ORIENTED AT THE TIME OF PUBLICATION; MORE THAN 60 PERCENT DESCRIBED STUDIES OF HOW LIVING ORGANISMS FUNCTION, OR DRUGS ACT--OR, IN OTHER WORDS, BASIC RESEARCH. DR. COMROE CONCLUDES THE HEART SURGEON HARDLY TOOK A GIANT LEAP UP THE PINNACLE OF OPEN HEART SURGERY. RATHER, HE CLIMBED SLOWLY, DRAWING ON TWENTY-FIVE DIFFERENT BODIES OF KNOWLEDGE--INCLUDING TRANSFUSION, INTRAVENOUS FEEDING, ANESTHESIA, AND CHEMOTHERAPY. HE CLIMBED ON STEPS LABORIOUSLY CHISELED OUT OF THE CLIFF BY THROUSANDS OF WORKERS IN MANY BRANCHES OF SCIENCE, OVER THE YEARS--WELL OVER A CENTURY, IN FACT.

IN THE SAME WAY, WE AT THE NEW NATIONAL INSTITUTE ON AGING MUST CONTINUE OUR EFFORTS--SOMETIMES SLOW--TO UNDERSTAND THE AGE-RELATED CHANGES IN CONNECTIVE TISSUES WHICH CAUSE SO MANY TO SUFFER SEVERE ARTHRITIS, AND THUS PERHAPS TO PREVENT, EVEN TO

REVERSE THESE CHANGES. WE MUST UNDERSTAND WHY THERE IS A DECLINE IN IMMUNOLOGICAL COMPETENCE WITH AGING--WHY IT IS HARDER FOR US TO FIGHT OFF DISEASE AS WE GROW OLDER, AND HOW CAN WE PREVENT, EVEN REVERSE, THIS DANGEROUS STATE.

WE MUST, IN SHORT, STUDY THE BASIC BIOLOGICAL MECHANISMS OF AGING, AT THE MOLECULAR AND CELLULAR LEVEL. THIS DOES NOT MEAN WE SHOULD NOT ALSO PURSUE OTHER SORTS OF RESEARCH; I ONLY STRESS BASIC RESEARCH BECAUSE IT IS SO NECESSARY, YET OFTEN DIFFICULT TO UNDERSTAND. IN ADDITION, WE NEED TO PURSUE "APPLIED" OR CLINICAL RESEARCH--INVESTIGATIVE MEDICINE WHICH WILL SHOW US, FOR EXAMPLE, WHY THERE ARE SO MANY MORE SLEEP DISTURBANCES IN OLD AGE, OR WHY OUR BODIES' TOLERANCE OF SUGAR CHANGES.

WHAT'S MORE, WE NEED TO EMPLOY THE SOCIAL AND PSYCHOLOGICAL SCIENCES TO UNDERSTAND WHY WE FEAR AGING AND DEAL WITH IT SO POORLY, AND HOW WE MIGHT AGE MORE SUCCESSFULLY. HOW CAN YOU AND I IMPROVE AND MAINTAIN MEMORY AS WE GROW OLDER? HOW CAN WE MOVE MORE SMOOTHLY FROM MIDDLE AGE TO OLD AGE? HOW DO WE ADJUST TO INEVITABLE LIFE CYCLE CRISES--RETIREMENT, WIDOWHOOD, DEATH? WHAT ARE THE ADVANTAGES AND DISADVANTAGES OF FLEXIBLE RETIREMENT POLICIES? CAN'T WE DEVISE RETIREMENT TEST BATTERIES--SCIENTIFICALLY SOUND STANDARDS WHICH SOCIETY CAN USE TO MEASURE WHETHER A PERSON DOES OR DOES NOT HAVE THE CAPACITY TO CONTINUE WORKING? WHY VOLUNTARY RETIREMENT, THE LAZY WAY OUT, WHEN THERE ARE SO MANY OLDER PERSONS WHO HAVE SO MUCH TO CONTRIBUTE AND

HAVE THE CAPACITY, DESIRE AND NEED TO DO SO. WHY MAKE PEOPLE UNNECESSARILY DEPENDENT?

AS WE SEEK ANSWERS TO SUCH FUNDAMENTAL QUESTIONS, WE WILL COLLABORATE WITH THE OTHER ESTABLISHED NATIONAL INSTITUTES OF HEALTH. WE WILL JOIN THE INSTITUTE OF NEUROLOGICAL AND COMMUNICATIVE DISORDERS AND STROKE IN AN ASSAULT ON THAT DREADFUL DISEASE, SENILE DEMENTIA, AND THE ARTHRITIS, METABOLISM AND DIGESTIVE DISEASES INSTITUTE IN TRYING TO ALLEVIATE THE CRIPPLING EFFECTS OF OSTEOPOROSIS. THE HEART AND LUNG INSTITUTE'S WELL-KNOWN FRAMINGHAM STUDY OFFERS US A VALUABLE RESOURCE, FOR THE SUBJECTS WHO PARTICIPATED IN THE DEVELOPMENT OF THE HIGHLY USEFUL CORONARY PROFILE--THROUGH WHICH PHYSICIANS CAN IDENTIFY THOSE SUSCEPTIBLE TO HEART DISEASE--ARE NOW OLDER PEOPLE, APPROPRIATELY SUBJECT TO NIA'S STUDIES.

WE ASK YOUR UNDERSTANDING AND SUPPORT AS WE WORK TO MAXIMIZE AND ENHANCE THE QUALITY OF LIFE; TO ASSURE THAT MORE OF US--MORE BLACK AND SPANISH-SPEAKING PEOPLE, AND MORE OF AN UNUSUAL MINORITY, MEN--REACH OLD AGE; AND TO EXTEND THE PRODUCTIVE MIDDLE YEARS.

AMERICAN INDUSTRY SPENDS 3.2 PERCENT OF NET SALES ON RESEARCH AND DEVELOPMENT, BUT THE FEDERAL GOVERNMENT INVESTS LESS THAN TWO-TENTHS OF ONE PERCENT OF ITS $17 BILLION ANNUAL HEALTH SERVICES-TO-THE-ELDERLY EXPENDITURE ON AGING RESEARCH.

ONE REQUIREMENT OF THE RESEARCH ON AGING ACT OF 1974 THAT CREATED THE NATIONAL INSTITUTE ON AGING WAS THE DEVELOPMENT OF AN HEW-WIDE RESEARCH PLAN FOR AGING. THIS PLAN HAS BEEN

COMPLETED THROUGH THE EFFORTS AND GENEROSITY OF THE AMERICAN COMMUNITY OF SCIENTISTS WHO HAVE WORKED IN AGING, THE NATIONAL ADVISORY COUNCIL OF OUR INSTITUTE, AND THE NIA STAFF. I HAVE NAMED THIS PLAN "OUR FUTURE SELVES" IN ORDER TO BRING ATTENTION TO ONE OF THE MAJOR PROBLEMS OF AGING, PARTICULARLY IN THIS COUNTRY: THE DENIAL OF THE REALITIES OF AGING AS SOMETHING THAT WILL INEVITABLY HAPPEN TO ONESELF AND TO ONE'S FAMILY.

IN TURN, LET ME ASSURE YOU, WE EXPECT YOU TO DEMAND THAT WE IN SCIENCE AND MEDICINE ACTIVELY SERVE THE PUBLIC INTEREST. YOU SHOULD RIGHTFULLY DEMAND THAT WE TRY BETTER TO ORGANIZE AND COORDINATE OUR EFFORTS IN ATTAINING SHORT AND LONG-TERM GOALS.

IN THESE EFFORTS, WE MUST MOVE QUICKLY, BUT WISELY. WE MUST APPROACH OUR SCIENTIFIC GOALS RATIONALLY, WITH RESPECT TO THE INVESTMENT OF DOLLARS AND THE TRANSFER OF KNOWLEDGE. AT TIMES WE MUST GUARD CAREFULLY AGAINST MOVING TOO FAST. THIS MAY SURPRISE YOU, AFTER TALK ABOUT THE PAINSTAKING PACE OF BASIC RESEARCH. BUT IN HIS STUDIES, DR. COMROE FOUND THAT IF ANYTHING, OUR SOCIETY MAY BE TOO QUICK IN TRANSFERRING THE FRUITS OF RESEARCH FROM BENCH TO BEDSIDE. WILHEM ROENTGEN DISCOVERED X-RAYS IN NOVEMBER, 1895. WITHIN SIX WEEKS, THE NEWS WAS OUT, AND WITHIN A YEAR A NEW PROFESSIONAL SOCIETY HAD BEEN FORMED, A NEW JOURNAL ESTABLISHED, AND A THOUSAND PAPERS PUBLISHED, ALL ABOUT X-RAYS. THAT, COMROE CONCLUDES, WAS PROBABLY TOO FAST, BECAUSE WE DID NOT UNDERSTAND X-RAYS WELL

ENOUGH, OR REALIZE HARM COULD COME FROM THEM. IT COULD, AND DID: PEOPLE DEVELOPED ULCERS AND LOST SKIN FROM OVEREXPOSURE. SOME EVEN LOST THE TIPS OF THEIR FINGERS.

AMONG OLDER PEOPLE, I HAVE OFTEN SEEN THE UNHAPPY RESULTS OF USING DISCOVERIES TOO SWIFTLY, BEFORE THEY ARE PROPERLY TESTED AND EVALUATED. ONE OF THE MOST TERRIFYING IS A CONDITION CALLED TARDIVE DYSKINESIA. IMAGINE YOURSELF WITH NO CONTROL OVER YOUR OWN MOUTH, YOUR FACE TWISTED, YOUR TONGUE REACHING OUT AS THOUGH TRYING TO CATCH A FLY. NOW CONSIDER THAT THIS CONDITION IS EXTREMELY HARD TO TREAT, AND THAT WE SEE IT ALL TOO COMMONLY IN ELDERLY WOMEN WHO HAVE BEEN ON CETAIN TRANQUILIZERS OVER LONG PERIODS OF TIME. LESS DRAMATICALLY, BUT NO LESS SAD, THE CASUAL OVERUSE OF PSYCHOACTIVE DRUGS, OR DRUGS WHICH ACT ON THE BRAIN, HAS LEFT MANY PATIENTS CONFUSED, AND OTHERS ANXIOUS, EVEN AGITATED. AND EVIDENCE NOW SUGGESTS THAT THE ROUTINE LONG-TERM PRESCRIPTION OF ESTROGEN FOR POST-MENOPAUSAL WOMEN HAS LEFT VICTIMS OF CANCER.

WE NEED THE ESTABLISHMENT OF A UNIT OF GOVERNMENT WHOSE JOB IS TO EVALUATE NEW SCIENTIFIC DISCOVERIES BEFORE THEY ARE FUNNELED TO DOCTORS FOR USE ON YOU AND ME, AND ON OUR CHILDREN AND OUR PARENTS. THIS DOES NOT HAVE TO BE A NEW AGENCY. IT COULD BE AN EXISTING AGENCY, OR PART OF ONE. THE NATIONAL INSTITUTES OF HEALTH AND THE NATIONAL INSTITUTE ON AGING WILL COOPERATE WITH THE EVALUATORS IN EVERY POSSIBLE WAY. BUT NIH AND NIA MUST PURSUE ITS MAIN GOALS OF ACQUIRING NEW KNOWLEDGE.

IF NIA WERE CALLED UPON TO TEST DRUG DISCOVERIES, OR REGULATE NURSING HOMES, WE WOULD HAVE TIME OR MONEY FOR LITTLE ELSE.

OUR NATION HAS SLIPPED INTO AN INFORMAL COLLEGIAL BENCH-TO-BEDSIDE NON-SYSTEM OF KNOWLEDGE AND TECHNOLOGY TRANSFER, A NON-SYSTEM THAT PERMITS HIGHLY POTENT TECHNOLOGIES TO BE USED IN THE PRACTICE OF MEDICINE AFTER REMARKABLY UNEVEN EVALUATION. PAPERS ARE PUBLISHED IN SCIENTIFIC JOURNALS. A "CONSENSUS" IS REACHED AT AN ACADEMIC MEDICAL CENTER. A CLINICAL TRIAL IS RUN--SOMETIMES. EVEN IF PRACTICING PHYSICIANS HAD THE TIME TO READ ALL THE PAPERS AND ATTEND ALL THE SCIENTIFIC MEETINGS IN ATLANTIC CITY, THEY WOULD STILL HAVE A DIFFICULT TIME EVALUATING NEW KNOWLEDGE. I AM SURE THAT AS WE MOVE TOWARD MORE COORDINATED EFFECTIVE HEALTH CARE, WE WILL FIND A WAY TO REMEDY THIS SERIOUS DEFECT IN GOVERNANCE, AND STILL PERMIT THE NATIONAL INSTITUTES OF HEALTH TO CONCENTRATE ON ITS RESEARCH JOB.

IN ASKING YOUR APPRECIATION AND SUPPORT FOR INTENSIFIED AND EFFICIENTLY ORGANIZED RESEARCH, I REALIZE THE PRESSURES UPON EACH OF YOU IN YOUR OWN COMMUNITY. I WANT RESEARCH TO HELP YOU AS YOU GO ABOUT YOUR WORK. AS YOU APPLY THE LATEST RESEARCH ALONG WITH THE RESOURCES OF A HUMANE SOCIETY IN BEHALF OF OLDER PEOPLE, REMEMBER THAT EVERY TAX DOLLAR SPENT ON AGING RESEARCH WILL RETURN TO THEM--AND TO YOUR CHILDREN--A THOUSAND TIMES.